

REMARKS

Claims 1-29 are pending in this application,
Claims 1, 12, 23, 25, and 29 are independent claims.

I. ALLOWABLE SUBJECT MATTER

Applicants appreciate the Examiner's indication that claims 26-28 would be allowable if rewritten in independent form including all of the limitations of the base claims and any of the intervening claims. However, as Applicants believe dependent claims 26-28 to be dependent upon allowable independent claims (as will be explained below), Applicants have not rewritten claims 26-28 in independent form at this time.

II. CLAIM REJECTIONS 35 U.S.C. § 102(b)

Claims 1-3, 7, 8, and 11 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,790,750 (hereinafter "Bourel"). Applicants respectfully traverse this rejection.

Contrary to the Examiner's assertion, Bourel does not appear to disclose the features of the claimed invention. Specifically, Claim 1 recites, *inter alia*, "a main body having **sidewalls** adapted to couple to at least one processing chamber and at least one load lock chamber" (emphasis added). In the current Office Action at Page 2, lines 10-11, the Examiner states "any wall on the chamber can be a side wall". Applicants respectfully disagree with this assertion. Applicants clearly show in FIG. 2 and describe in the Specification at Page 6, line 32 and Page 7, line 1 "a cylindrical interior wall 209 and an exterior

wall 211 having flat regions 213 which form side walls 215". Further, Applicants describe in the Specification at least at Page 9, lines 16-33 and Page 10, lines 1-12, advantages of locating the processing chambers and load lock chambers around the side walls. Here, Applicants refer to common overhead height limitations due to factory transport systems, ceiling heights, or the like, thus precluding locating the load lock chambers and process chambers on the upper wall as suggested by the Examiner and described in Bourel. The above cited portion of Applicants' Specification further describes trends in the flat panel industry requiring increasingly larger load lock chambers and process chambers which could not reasonably be located on an upper wall. Applicants submit locating processing chambers and load lock chambers around side walls has an additional advantage of providing more surface area on which to attach these chambers. Locating processing chambers and load lock chambers on the upper wall either reduces the amount of chambers which may be coupled thereto, or, if the size of the transfer chamber is increased to accommodate additional chambers, unnecessarily increases the internal size of the transfer chamber. Accordingly, Bourel fails to anticipate the present invention as the reference does not appear to teach or show "a main body having sidewalls adapted to couple to at least one processing chamber and at least one load lock chamber".

Reconsideration and withdrawal of the 35 U.S.C. § 102(b) rejection of independent claim 1 is respectfully requested. Dependent claims 2, 3, 7, 8, and 11 depend from independent claim 1 and are allowable for at least the same reasons. Accordingly, reconsideration and

withdrawal of the 35 U.S.C. § 102(b) rejections of claims 2, 3, 7, 8, and 11 are respectfully requested.

III. CLAIM REJECTIONS 35 U.S.C. § 103(a)

Claims 1-25 and 29 stand rejected under 35 U.S.C. § 103(a) as being anticipated by Bourel in view of U.S. Patent No. 6,383,330 (hereinafter "Raaijmakers"). Applicants respectfully traverse this rejection.

Regarding claims 1-3, 7, 8, and 11, Bourel does not appear to show or suggest Applicants' claimed invention, as discussed above. The Examiner offers no further references with which to overcome the deficiencies of Bourel. Accordingly, Applicants respectfully submit a Section 103 rejection is improper and request the Examiner reconsider and withdraw this rejection.

Regarding claims 12 and 23, the Examiner concedes Bourel fails to show "a robot at least partially extending through the domed bottom into the transfer chamber" (Office Action, Page 4, lines 14-15). The Examiner points to Raaijmakers' wafer holder to show this feature. However, the Examiner does not address the claim feature in its entirety. Claim 12 recites, *inter alia*:

a robot at least partially extending through the domed bottom into the transfer chamber, **the robot adapted to transport a substrate between the at least one processing chamber and the at least one load lock chamber via the transfer chamber.** (emphasis added)

Similar features are recited in independent claim 23. The wafer holder of Raaijmakers is contained in a processing chamber and is supported on a rotating shaft. See Raaijmakers, Col. 9, lines 20-22. The processing chamber

is adapted to receive a wafer on the wafer holder (Raaijmakers, Col. 8, lines 61-67 and Col. 9, lines 20-28), but is not designed to "transport a substrate between the at least one processing chamber and the at least one load lock chamber via the transfer chamber" as recited in claim 12 and shown in Applicants' Specification at least at Page 12, lines 4-27. As the Examiner has conceded, Bourel fails to address all claim features of Applicants' claims 12 and 23. Raaijmakers does not appear to show the features deficient in the Bourel reference. Bourel and Raaijmakers, alone or in combination, fail teach or suggest "a robot at least partially extending through the domed bottom into the transfer chamber, the robot adapted to transport a substrate between the at least one processing chamber and the at least one load lock chamber via the transfer chamber." Accordingly, the Examiner has failed to set forth a *prima facie* case of obviousness. As the references do not appear to teach all claim features of these independent claims, Applicants respectfully request the Examiner reconsider and withdraw this rejection.

Further, the Examiner does not appear to have offered proper motivation to combine these references. Applicants respectfully submit the Examiner has mischaracterized Raaijmakers and has not fully considered Bourel with reference to this supposed motivation to combine. The Examiner has offered a motivation for including a certain structure in the Raaijmakers reference, but has provided no motivation to combine Bourel with Raaijmakers.

The Examiner points to Raaijmakers, Col. 2, lines 50-52 as providing motivation to combine these references. Raaijmakers states "the chamber should be compact and have

sufficient strength to be used in low pressure, high temperature environments." However, the transfer chamber of Bourel must also accommodate higher pressures during use (Bourel, Col. 4, lines 30-33). As the invention of Bourel requires use in high temperature, high pressure environments, one of ordinary skill in the art would not look to a device which seems to be designed for low pressure use. Additionally, the Examiner contends "[t]he motivation for allowing a holder to extend through the opening of a lower domed wall is that it allows the chamber to be compact." However, this motivation is not supported by the reference. In the reference, the wafer holder is positioned atop a rotating shaft contained within a tube depending from the bottom wall of the chamber. See Raaijmakers FIG. 2 and Col. 9, lines 20-23. The motivation for allowing the tube to depend from the bottom wall is to allow introduction of a purge gas, not to allow the chamber to be compact, as asserted by the Examiner. See Raaijmakers, Col. 9, lines 20-28 and Col. 10, lines 20-32 and FIG. 3. Therefore, considering these additional reasons, the Examiner has again not met the burden of establishing a *prima facie* case of obviousness and Applicants respectfully request withdrawal of the rejection of independent claims 12 and 23.

Regarding independent claims 25 and 29, the Examiner has rejected these claims as being unpatentable over Bourel in view of Raaijmakers. The Examiner appears to claim Bourel teaches all of the subject matter as described in the Section 102 rejection. However, the Examiner offers no explanation as to how the features of these claims are shown in either Bourel or Raaijmakers. Applicants reiterate their comments regarding the Section

102 rejection as discussed above. Additionally, Applicants point out the unaddressed similar feature of independent claims 25 and 29 of:

- a domed region having:
 - a first radiused portion having a first radius of curvature; and
 - a second radiused portion extending between the first radiused portion and the cylindrical region and having a second radius of curvature that is less than the first radius of curvature.

Applicants submit this feature is not discussed by the Examiner, nor is it addressed in Bourel or Raaijmakers. Accordingly, Applicants submit the rejection is improper and respectfully request withdrawal of the rejection of independent claims 25 and 29.

A review of the art of record has failed to reveal anything that, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as referenced against the independent claims herein. Those claims are therefore believed patentable over the art of record.

Dependent claims 2-11, 13-22, and 24 depend from independent claims 1, 12, and 23, respectively and thus are submitted as patentable for at least the reasons discussed above. Applicants respectfully request the Examiner reconsider and withdraw the rejections of these claims.

IV. CONCLUSION

The Applicants believe all the claims are in condition for allowance, and respectfully request reconsideration and allowance of the same.

Applicants do not believe any Request for Extension of Time is required but if it is, please accept this paragraph as a Request for Extension of Time and authorization to charge the requisite extension fee to Deposit Account No. 04-1696. Applicants do not believe any other fees are due regarding this amendment. If any other fees are required, however, please charge Deposit Account No. 04-1696. The Applicants encourage the Examiner to telephone Applicants' attorney should any issues remain.

Respectfully Submitted,



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